CLAIMS

We claim:

1. A method of communication between a first object located on a first computer having a first memory location and a buffer, and a second object located on a second computer, the first and second computers connected by a network, accessed by the first computer through a network interface card on the first computer, the method comprising: calling an interface of the second object with the first object; placing in the buffer a copy of a first pointer to a first parameter, wherein the first parameter is used in the calling of the interface of the second object and wherein the first pointer points to the first parameter in the first memory location; and transmitting, by the network interface card, the first parameter pointed to by the first pointer by reading the first parameter out of the first memory location.

2. The method of claim 1 further comprising issuing a notification on the first computer after the network interface card has finished reading the first parameter out of the first memory location.

3. The method of claim 2 further comprising reclaiming the first memory location after receiving the notification.

4. The method of claim 1 further comprising: placing in the buffer the copy of the first pointer to the first parameter and a copy of a second pointer to a second parameter, wherein the second parameter is used in the calling of the interface of the

second object and wherein the second pointer points to the second parameter in a second memory location on the first computer; and transmitting, by the network interface card, the first parameter pointed to by the first pointer by reading the first parameter out of the first memory location and the second parameter pointed to by the second pointer by

5   reading the second parameter out of the second memory location.

5.   The method of claim 4 further comprising issuing a first notification on the first computer after the network interface card has finished reading the first parameter out of the first memory location and issuing a second notification on the first computer

10   after the network interface card has finished reading the second parameter out of the second memory location.

6.   The method of claim 5 further comprising reclaiming the first memory location after receiving the first notification.

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7.   The method of claim 6 further comprising reclaiming the second memory location after receiving the second notification.

8.   The method of claim 1 wherein the transmitting comprises: posting, on the

20   first computer, a first receive buffer prior to sending a first data to the second computer, wherein the first receive buffer will receive a second data from the second computer; and sending the first data to the second computer.

9.   The method of claim 8 wherein the transmitting further comprises:

cleaning up, on the first computer, a second receive buffer after sending the first data to

the second computer and prior to receiving the second data from the second computer.

5   10.   The method of claim 9 wherein the second receive buffer was posted prior

to the first receive buffer.

11.   The method of claim 8 wherein the transmitting further comprises:

cleaning up, on the first computer, a send buffer after sending the first data to the second

10   computer and prior to receiving the second data from the second computer.

12.   The method of claim 11 wherein the send buffer was used to send the first

data to the second computer.

15   13.   The method of claim 8 wherein the second data from the second computer

is in response to the first data from the first computer.

14.   A method of communication between a first object located on a first

computer and a second object located on a second computer, the second computer having

20   a memory storage location and a buffer, the first and second computers connected by a

network, accessed by the second computer through a network interface card on the

second computer, the method comprising: receiving a call from the first object on an

interface of the second object; receiving, by the network interface card, a parameter of the

call from the first object; storing the parameter in a memory location; and accessing, by the second object, the parameter.

15.   The method of claim 14 wherein the memory location is the buffer

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16.   The method of claim 15 wherein the accessing the parameter is performed in the buffer.

17.   The method of claim 15 further comprising copying the parameter from

10   the buffer into the memory storage location, wherein the accessing the parameter is performed in the memory storage location.

18.   The method of claim 14 wherein the memory location is the memory storage location, and wherein the accessing the parameter is performed in the memory

15   storage location.

19.   The method of claim 14 wherein the receiving comprises: storing, on the second computer, a second data into a first receive buffer, wherein the first receive buffer was posted prior to sending a first data to the first computer.

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20.   The method of claim 19 wherein the first data to the first computer was sent prior to receiving the second data from the first computer.

21.   The method of claim 19 wherein the receiving further comprises: cleaning

up, on the second computer, a send buffer after sending the first data to the first computer

and prior to receiving the second data from the first computer.

5   22.   The method of claim 21 wherein the send buffer was used to send the first

data to the first computer.

23.   The method of claim 19 wherein the receiving further comprises: cleaning

up, on the second computer, a second receive buffer after sending the first data to the first

10   computer and prior to receiving the second data from the first computer.

24.   A computer-readable medium having computer-executable instructions for

performing steps for communicating between a first object located on a first computer

having a first memory location and a buffer, and a second object located on a second

15   computer, the first and second computers connected by a network, accessed by the first

computer through a network interface card on the first computer, the steps comprising:

calling an interface of the second object with the first object; placing in the buffer a copy

of a first pointer to a first parameter, wherein the first parameter is used in the calling of

the interface of the second object and wherein the first pointer points to the first

20   parameter in the first memory location; and transmitting, by the network interface card,

the first parameter pointed to by the first pointer by reading the first parameter out of the

first memory location.

25.   The computer-readable medium of claim 24 having further computer-executable instructions for performing steps comprising: issuing a notification on the first computer after the network interface card has finished reading the first parameter out of the first memory location.

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26.   The computer-readable medium of claim 25 having further computer-executable instructions for performing steps comprising: reclaiming the first memory location after receiving the notification.

10   27.   The computer-readable medium of claim 24 having further computer-executable instructions for performing steps comprising: placing in the buffer the copy of the first pointer to the first parameter and a copy of a second pointer to a second parameter, wherein the second parameters is used in the calling of the interface of the second object and wherein the second pointer points to the second parameter in a second

15   memory location on the first computer; and transmitting, by the network interface card, the first parameter pointed to by the first pointer by reading the first parameter out of the first memory location and the second parameter pointed to by the second pointer by reading the second parameter out of the second memory location.

28.   The computer-readable medium of claim 27 having further computer-executable instructions for performing steps comprising: issuing a first notification on the first computer after the network interface card has finished reading the first parameter out of the first memory location and issuing a second notification on the first computer after

the network interface card has finished reading the second parameter out of the second memory location.

29.   The computer-readable medium of claim 28 having further computer-executable instructions for performing steps comprising: reclaiming the first memory location after receiving the first notification.

30.   The computer-readable medium of claim 29 having further computer-executable instructions for performing steps comprising: reclaiming the second memory location after receiving the second notification.

31.   The computer-readable medium of claim 24 wherein the transmitting comprises: posting, on the first computer, a first receive buffer prior to sending a first data to the second computer, wherein the first receive buffer will receive a second data from the second computer; and sending the first data to the second computer.

32.   The computer-readable medium of claim 31 wherein the transmitting further comprises: cleaning up, on the first computer, a second receive buffer after sending the first data to the second computer and prior to receiving the second data from the second computer.

33.   The computer-readable medium of claim 32 wherein the second receive buffer was posted prior to the first receive buffer.

34.   The computer-readable medium of claim 31 wherein the transmitting

further comprises: cleaning up, on the first computer, a send buffer after sending the first

data to the second computer and prior to receiving the second data from the second

5   computer.

35.   The computer-readable medium of claim 34 wherein the send buffer was

used to send the first data to the second computer.

10   36.   The computer-readable medium of claim 31 wherein the second data from

the second computer is in response to the first data from the first computer.

37.   A computer-readable medium having computer-executable instructions for

performing steps for communicating between a first object located on a first computer

15   and a second object located on a second computer, the second computer having a memory

storage location and a buffer, the first and second computers connected by a network,

accessed by the second computer through a network interface card on the second

computer, the steps comprising: receiving a call from the first object on an interface of

the second object; receiving, by the network interface card, a parameter of the call from

20   the first object; storing the parameter in a memory location; and accessing, by the second

object, the parameter.

38.   The computer-readable medium of claim 37 wherein the memory location

is the buffer.

39.   The computer-readable medium of claim 38 wherein the accessing the

5   parameter is performed in the buffer.

40.   The computer-readable medium of claim 38 having further computer-

executable instructions for performing steps comprising: copying the parameter from the

buffer into the memory storage location, wherein the accessing the parameter is

10   performed in the memory storage location.

41.   The computer-readable medium of claim 37 wherein the memory location

is the memory storage location, and wherein the accessing the parameter is performed in

the memory storage location.

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42.   The computer-readable medium of claim 37 wherein the receiving

comprises: storing, on the second computer, a second data into a first receive buffer,

wherein the first receive buffer was posted prior to sending a first data to the first

computer.

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43.   The computer-readable medium of claim 42 wherein the first data to the

first computer was sent prior to receiving the second data from the first computer.

44.   The computer-readable medium of claim 42 wherein the receiving further comprises: cleaning up, on the second computer, a send buffer after sending the first data to the first computer and prior to receiving the second data from the first computer.

5   45.   The computer-readable medium of claim 44 wherein the send buffer was used to send the first data to the first computer.

46.   The computer-readable medium of claim 42 wherein the receiving further comprises: cleaning up, on the second computer, a second receive buffer after sending the

10   first data to the first computer and prior to receiving the second data from the first computer.